

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

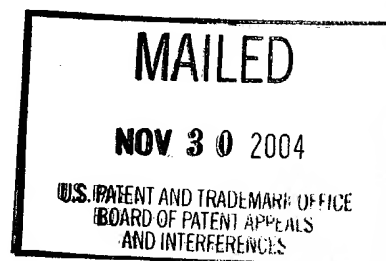
UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte DALE R. PETERSON, Z.DAVID DENG
and TODD P. GLANCY

Appeal No. 2004-2129
Application No. 09/923,118

ON BRIEF



Before, ELLIS, ADAMS and GREEN, Administrative Patent Judges.

ELLIS, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal pursuant to 35 U.S.C. § 134 from the examiner's final rejection of claims 13-18. The examiner has indicated that claims 1-12 are allowable.

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Claim 13 is representative of the subject matter on appeal and reads as follows:

13. A pressure sensitive adhesive for tissue repair comprising a thermoplastic lactide-containing terpolymer of monomer units derived from lactic acid, glycolic acid, and either caprolactone or valerolactone, said terpolymer having an average molecular weight of 1,000 to 3,000, exhibiting an adhesive strength of about 600 to about 150,000 Pa, having a water solubility of 0.01 to about 500 mg/ml at about 25°C, and having a glass transition temperature of less than 0°C.

The reference relied upon by the examiner is:

Brine	5,075,115	Dec. 24 1991
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The claims stand rejected as follows:

- I. Claims 13-16 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Brine.
- II. Claims 13-18 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which the appellant regards as the invention.

We have carefully considered the respective positions of the appellants and the examiner and find ourselves in substantial agreement with that of the appellants.

Accordingly, we reverse.

Background and Discussion

As indicated by claim 13 above, the invention is directed to a pressure-sensitive adhesive for tissue repair comprising a thermoplastic lactide-containing terpolymer of monomer units derived from lactic acid, glycolic acid and either caprolactone or valerolactone. The adhesive is said to be useful for treating or repairing bone or cartilage. Specification, p. 2. According to the specification (page 2), the

adhesives of this invention can be applied to the bone-contacting surfaces of prosthetic appliances (as a cement), or they can be inserted into and around bone defects and cavities or cartilage surfaces (such as filler). The ... adhesive biodegrades gradually. As it biodegrades, it is replaced by developing bone or cartilage tissue in a manner which permits a natural healing of the tissue.

The biodegradability of the claimed adhesive is said to be advantageous because a patient need not undergo a second surgery to remove it.

I. 35 U.S.C. § 112, second paragraph

We note that the examiner first raises the issue of whether the claimed invention is patentable pursuant to 35 U.S.C. § 102(b). However, we point out that the first inquiry should be whether the claims “set out and circumscribe a particular area with a reasonable degree of precision and particularity.” In re Moore, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971). Since it is erroneous to analyze claims based on “speculation as to the meaning of terms employed and assumptions as to the scope of

the claims” (In re Steele, 305 F.2d 859, 862, 134 USPQ 292, 295 (CCPA 1962)), we begin by addressing the issues raised under § 112.

To that end, the examiner argues that claims 13-18 are indefinite in the recitation of the term “derived.” Answer, p. 4. According to the examiner, “derived” includes monomers which have been altered from the original in an unspecified manner. Id.

Here, we find the examiner’s position to be perplexing. The term “derived” is used in the same context in claims 1-12. For example, claim 1 is directed, inter alia, to a “lactide-containing terpolymer consisting of monomer units derived from lactic acid, glycolic acid, and either caprolactone or valerolactone” [emphasis added].¹ If claims 1-12 are allowable, then it reasonably follows that claims 13-18 are as well.

Accordingly, we decline further consideration of this issue.

Rejection II is hereby reversed.

¹ Claim 1 reads as follows:

1. A pressure sensitive adhesive for tissue repair comprising a thermoplastic lactide-containing terpolymer consisting of monomer units derived from lactic acid, glycolic acid, and either caprolactone or valerolactone, said terpolymer having an average molecular weight of 1,000 to 3,000, exhibiting an adhesive strength of about 600 to about 150,000 Pa, and having a water solubility of 0.01 to about 500 mg/ml at about 25°C.

II. 35 U.S.C. § 102(b)

The examiner argues claims 13-16 are anticipated by Brine's teachings with respect to "lactic acid with a molecular weight of 2500-4500 (abstract)" and "[t]erpolymers with other hydroxyl carboxylic acid such as glycolic acid, ε-caprolactone and valerolactone." Answer, p. 4, Paper No. 8, Final rejection, p. 2, relying on Brine, col. 3, lines 28-32 and col. 4, lines 60-64. The examiner further argues that Brine teaches glass transition temperatures of 26°C to about -65°C. Paper No. 8, p. 2, relying on Brine, the abstract and col. 3, lines 52-53.

It is well established that anticipation requires that each and every limitation set forth in a claim be present, either expressly or inherently, in a single prior art reference. In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999); Celeritas Techs. Ltd v. Rockwell Int'l Corp., 150 F.3d 1354, 1360, 47 USPQ2d 1516, 1522 (Fed. Cir. 1998); Verdegaal Bros., Inc. v. Union Oil Co., 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Co., 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984).

Here, we find no difference between the subject matter set forth in claims 1-12 and that which is set forth in claims 13-18.² That is, claims 1-12 are directed to an adhesive comprising a "terpolymer consisting of monomer units . . .", and claims 13-18

² We point out that the following are duplicative in scope: claims 5 and 13; claims 6 and 14; claims 7 and 15; claims 8 and 16; claims 9 and 17; claims 10 and 18.

are directed to an adhesive comprising a “terpolymer of monomer units . . .” The phrase “consisting of” only modifies the phrase “monomer units.” Therefore, the lack of the phrase in claims 13-18 does not change the meaning of the term “terpolymer.”

As to whether the phrase “comprising a thermoplastic lactide-containing terpolymer” opens the claims to additional monomers as the examiner appears to allege (Answer, p. 4), we point out that claims 1-12 contain the same claim language. Thus, if claims 1-12 are not anticipated by Brine, then neither are claims 13-18.

In addition, we point out that polymers comprising lactone and up to seven additional monomers (Answer, p. 4), is not a terpolymer as required by claims 13-18. We construe the term “comprising” to mean that the adhesive comprises a terpolymer as set forth in the claims as well as other components such as a filler, a bioactive agent, etc.

In any event, we find that the issue of anticipation is resolved on the basis of whether or not Brine discloses a terpolymer derived from monomer units as set forth in the claims; viz., a lactic acid/glycolic acid/caprolactone or a lactic acid/glycolic acid/valerolactone. As pointed out by the appellants, a terpolymer is made from three different monomers. Brief, p. 3. We have carefully considered Brine’s disclosure and we agree with the appellants that it does not teach a terpolymer. Rather, Brine discloses that

To make copolymers of the above with glycolic acid, valerolactone, decalactone, or the like the same procedures are employed using the

appropriate mixture of ingredients, such as, racemic lactic acid with glycolic acid, or 1(+)-lactic acid with valerolactone [emphasis added]. Brine, col. 4, lines 60-64.

While it may appear at first blush that Brine discloses a terpolymer of glycolic acid, lactic acid and valerolactone; we find that when the quoted sentence is read in the context of the Brine patent as a whole, it [the quoted sentence] refers to (i) copolymers - a polymer made from two monomer units; and (ii) the copolymers of “glycolic acid, valerolactone, ϵ -caprolactone, ϵ -decalactone, hydroxybutyric acid, β -hydroxyvaleric acid and diozanone . . . and poly(lactic acid) . . .” recited in col. 3, lines 28-38. Although not a model of clarity, we find that the referenced section of the patent discloses the manner in which copolymers made from the monomer units set forth in col. 3 are combined.


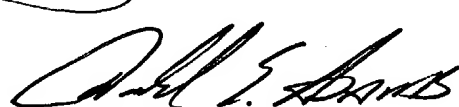

In addition, we point out that the examiner has not demonstrated that the polymers disclosed in Brine have an adhesive strength of about 600 to about 150,000 Pa and a water solubility of 0.01 to about 500 mg/ml at about 25°C. As discussed above, anticipation requires that each and every limitation set forth in a claim be present in the applied prior art. In re Robertson, 169 F.3d at 745, 49 USPQ2d at 1950; Celeritas Techs. Ltd v. Rockwell Int’l Corp., 150 F.3d at 1360, 47 USPQ2d at 1522; Verdegaal Bros., Inc. v. Union Oil Co., 814 F.2d at 631, 2 USPQ2d at 1053; Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Co., 730 F.2d at 1458, 221 USPQ at 485. The specification discloses that the adhesive strength (Pa) is

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manipulated by changing the homopolymer and/or the molecular weight of the polymer. Specification, pp. 19-22. The examiner has not pointed to any teachings in Brine which establish that the polymers taught therein exhibit the claimed adhesive strength. Nor does the examiner make any mention of the water solubility of the compounds disclosed in the patent.

Accordingly, in view of the foregoing, the decision of the examiner is reversed.

REVERSED

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Joan Ellis)	
Administrative Patent Judge)	
)	
Donald E. Adams)	
Administrative Patent Judge)	BOARD OF PATENT
)	APPEALS AND
Lora Green)	INTERFERENCES
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JE/eld

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